Defense Information Systems Agency
Department of Defense

# DISN Convergence

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**Unclassified**

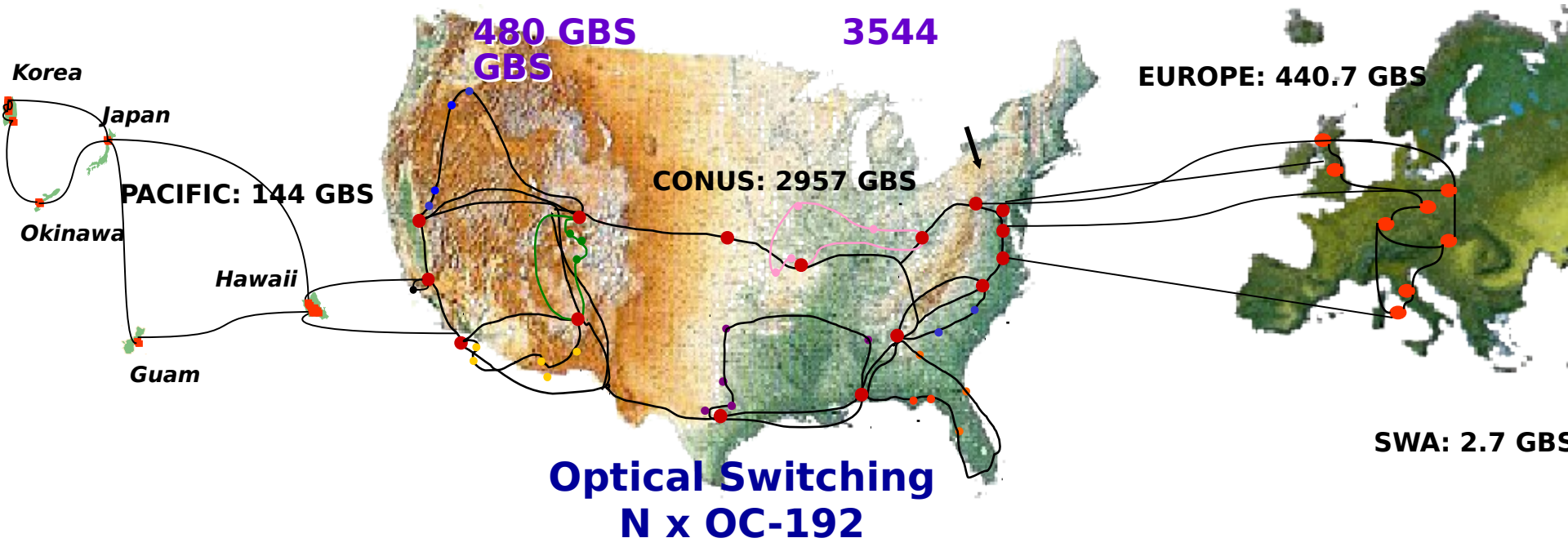
# DISA Global Reach

## Responsive/Protected/Robust/Efficient

- ***Ubiquitous, Secure, Robust, Optical IP Terrestrial Network***
- ***FOC November 05***
- ***Baseline for transition and optimization activities & plans***

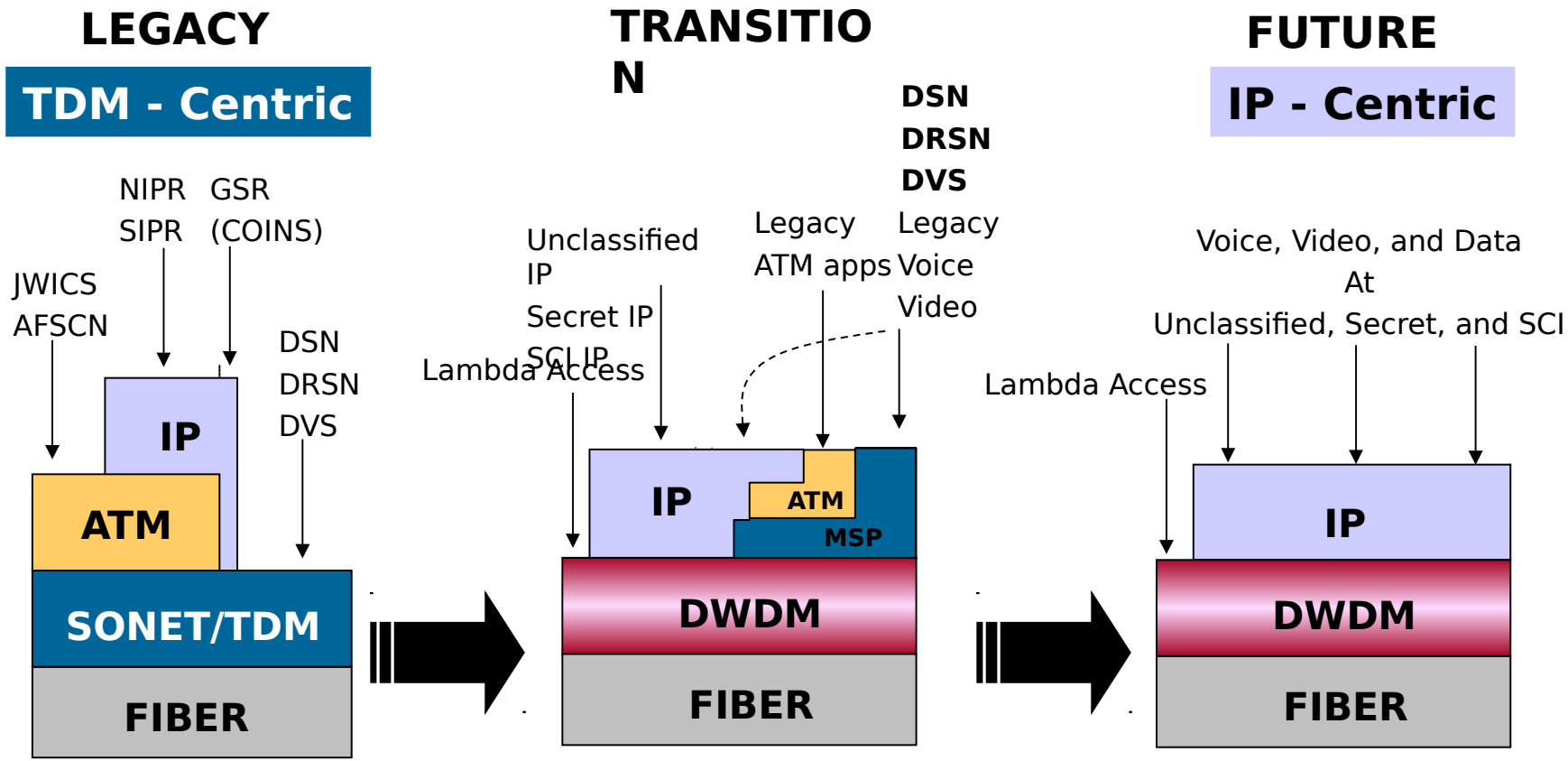
**TOTAL CAPACITY**

**FEB 05** 480 GBS
**FEB06** 3544 GBS

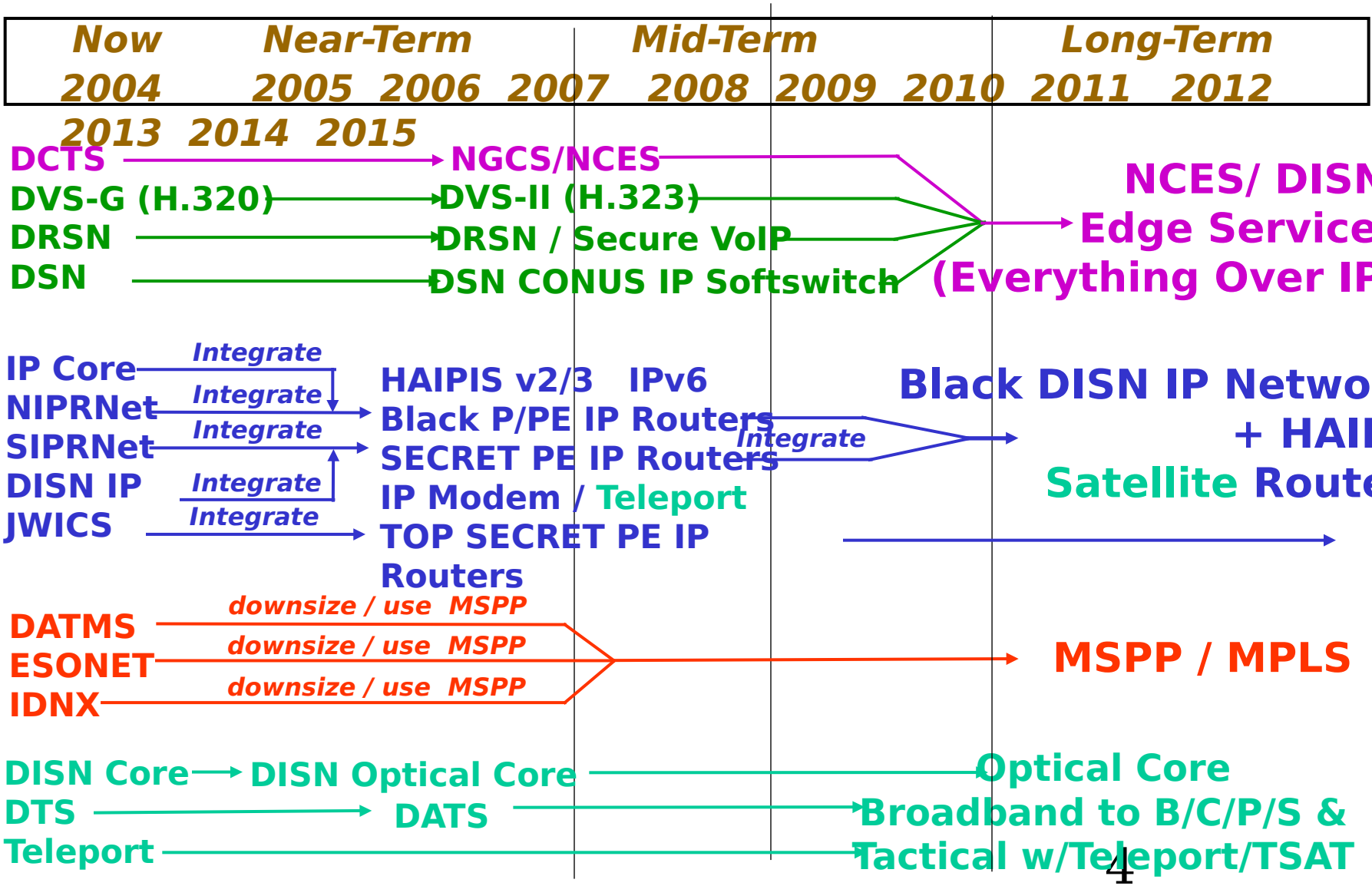



***Posturing GIG to Support Net Centric Operations Warfare***

# DISN Evolution



# DISA Converged End States
## DISN Optimization/Transition Roadmap



# DISA GIG Convergence Master Plan

- **High-level "Plan of Plans" for all major DISA programs**
  - **Establishes an interim state by 4QFY07 that transitions expiring contracts to bandwidth acquired to support DISN Subscription Services (positioning DISA for future convergence activities)**
  - **Built to align DISA-managed programs to DoD net-centric goals (Joint Vision 2020, GIG Architecture & Requirements)**
  - **Moves DISA to a leadership role in converging the Information Technology (IT) environment**
  - **Evolutionary product over the past two years**
  - **Defines end states for 2008, 2012, and 2016 which move in the direction of full convergence**
  - **Defines gaps and deficiencies (challenges) to attain end states**
  - **Fosters planning across DISA to move programs, projects, and products; a roadmap toward end state**

# Convergence Architectures

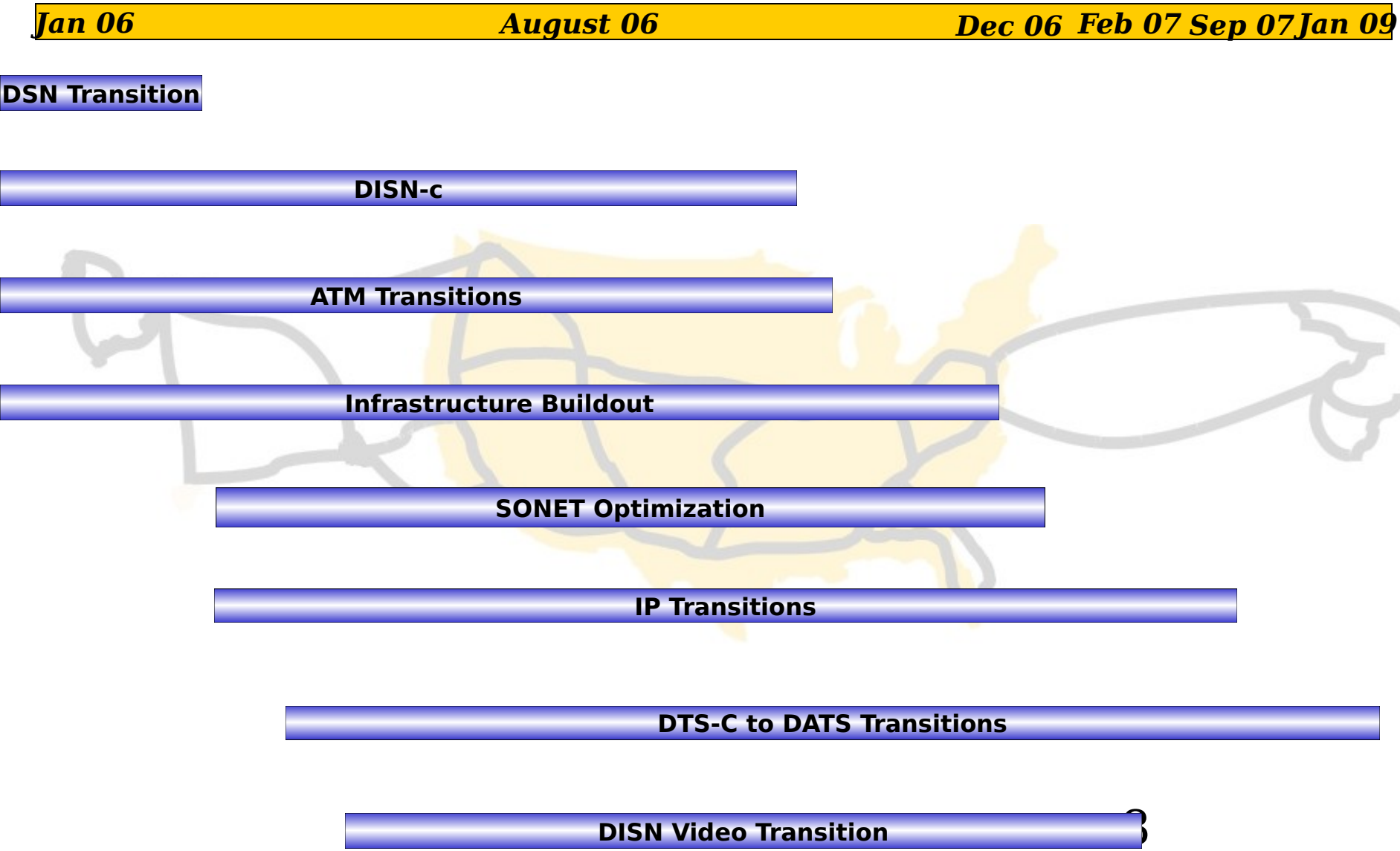
- **DISN Network Convergence**
  - **Transition of DISN Transport Networks (Asynchronous Transfer Mode (ATM), Promina TDM, DISN Access Transport System (DATS), and DISN Expansion Program (DEP) to the New DISN Optical IP Core.**
- **IP Convergence**
  - **Transition of separate SIPRNet and NIPRNet infrastructures to a common high-speed black core**
- **Edge Services**
  - **Transition of Defense Switched Network, Defense Red Switched Network, and DISN Video Service to an IP-Centric Service**

# DISN Vision Customer Connectivity

- **Customer Connectivity to Black Core**
  - **DISN demarcation at PE routers**
  - **HAIPE managed by customer organizations**
  - **DISN Wireless Access Integration**
  - **IP evolution will nearly eliminate dependencies on ATM/legacy transport infrastructure**

- **Customer Connectivity Flexibility**
  - **Support both tactical hard-to-reach customers and fixed base installations**
  - **Provide increased bandwidth required for advanced services**
  - **Increase connectivity options available to the customer**

# DISN Transition Timeline



# DISN Transition

**Requirement: To develop and implement an integrated transition of DISA services to respond to expiring contracts and to take advantage of current DISN Core infrastructure**

**t Priorities:**

**omplete buildout of GIG-BE and DISN extension customer edge**

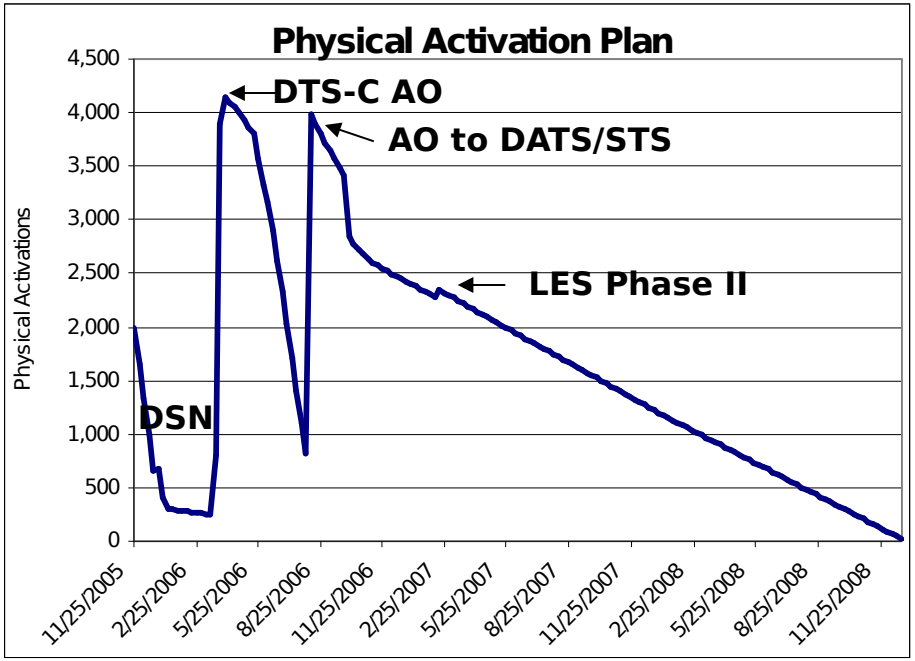
**50 buildout sites completed to support DISN Subscription Services transition and modernizatio**

**omplete selected circuit cutovers in support of DATMS, IP, and DISN Transport**

**On track to support Service Manager targets except for DTS-AO. Vendor Corporate meeting sc**

**Week of 30 June - 6 July 06**

| Actions | Weekly | Cumulative | Total | % Complete |
|---|---|---|---|---|
| DSN | - | 1,990 | 1,990 | 100% |
| DISN-c Circuits | 0 | 120 | 123 | 98% |
| DTS-C-to STS | 0 | 67 | 160 | 42% |
| DTS-C AO | 66 | 874 | 2,881 | 30% |
| ATM Circuits "66" | 1 | 29 | 59 | 49% |
| ATM Circuits Other | 1 | 22 | 38 | 58% |
| MAN | 0 | 5 | 80 | 6% |
| NIPR COIN | 0 | 0 | 58 | 0% |
| NIPR Hub Circuits | 2 | 4 | 294 | 1% |
| SIPR Hub Circuits | 0 | 2 | 170 | 1% |
| Europe ATM Circuits | 1 | 14 | 17 | 82% |
| Pacific ATM Circuits | 0 | 25 | 31 | 81% |
| IC User | 0 | 2 | 16 | 13% |
| DVS II | 0 | 0 | 294 | 0% |
| FAA | 0 | 5 | 565 | 1% |
| Transition Cost Avoidance | 0 | 0 | 13 | 0% |
| GS22 SONET Transition | 0 | 0 | 50 | 0% |
| AO-to-STS | 0 | 0 | 1,256 | 0% |
| AO-to-DATS | 0 | 0 | 1,623 | 0% |
| LES Transition | 0 | 0 | 43 | 0% |
| Actions This Week | 71 | 3,159 | 9,761 | 32% |
| | | | | |
| CONUS Site Activation | | | | |
| Sites | 0 | 55 | 129 | 43% |



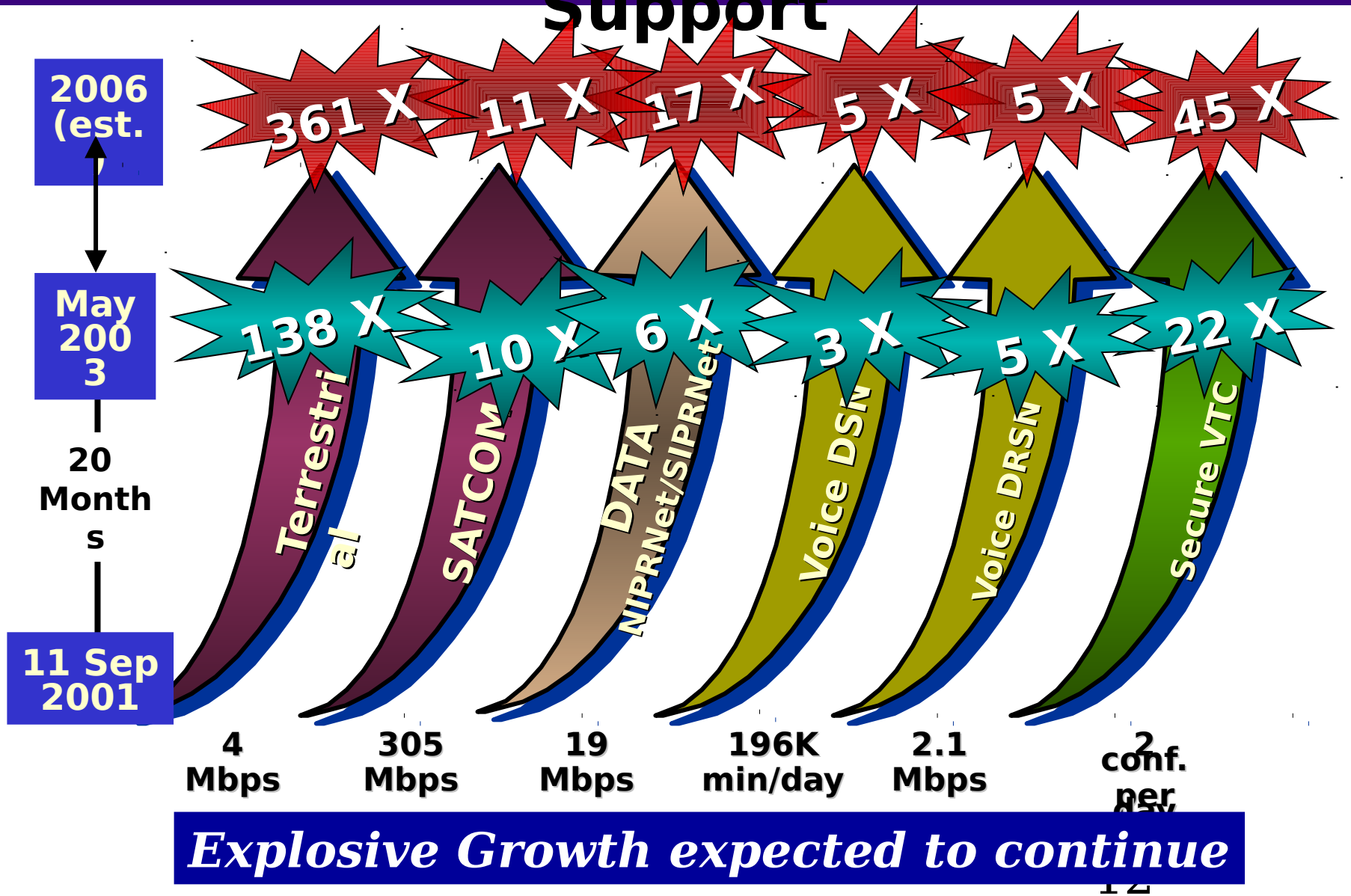
# DISN Video Transition

- **Establish new DISN Video hubs in government facilities**
- **DISN video hub access via high speed DISN IP & DSN, continue commercial ISDN for off-net access of approved users**
- **Upgrade DSN/commercial switch access capacity at video hubs**
- **Convert existing dedicated video studios to compatible protocols and transport**
  - **H.323 (IP)**
    - **Use existing base LANs (classified and unclassified) to connect via DISN IP services to video hubs. Base responsible for on base provisioning OR**
    - **Establish dedicated IP network access service extensions to video studios for interim use until LANs are ready (requires base to pay for cross base connection)**
  - **H.320 (ISDN)**
    - **Customer installs a local ISDN dial service to connect to video hub**
  - **May require new customer hardware – provided by customer**

# DISN SONET Optimization/Transition

- **Establish new SONET core using OC-192, OC48, OC12, OC3 and DS3 between DISN Subscription Sites**
  - **CISCO 15454s and ADTRAN M13s provide SONET circuit edge customer POPs**
- **Transition circuits off existing contracts**
  - **Denver, St Louis, and San Antonio MANs**
  - **Expiring DISN core contracts**
  - **Higher cost DTS-CE and Bulletin Board SONET services**
- **Discontinue/terminate existing contracts after completing transitions to new lower cost paths**

# Center for Network Services Successes in Coalition Support




***Explosive Growth expected to continue***

# Summary

**DISA: Simultaneously transitioning multiple services on to higher bandwidth cores**

- **Leading the Department's efforts in moving toward net-centric operations and warfare**
- **Terminating expiring contracts with a combination of government owned core with contractor operated SONET and video services that takes advantages of both government and contractor capabilities**
- **Keeping pace with change**

**www.disa.mil**